INCH POUND

MIL-PRF-1/338H
14 July 1998
SUPERSEDING
MIL-E-1/ 338G
10 January 1986

PERFORMANCE SPECIFICATION SHEET

ELECTRON TUBE, TRANSMITTING
TYPE 2E26

This specification is approved for use by all Departments and Agencies of the Department of Defense.

The requirements for acquiring the electron tube described herein shall consist of this document and the latest issue of MIL-PRF-1

DESCRIPTION: Beam power amplifier, F1 = 125 MHz, F2 = 175 MHz.

Outline - - - See figure 1.

Base - - - B8-26 or B8-44.

Cap - - - C1-1.

Envelope - - - T9.

Cathode - - - Coated unipotential.

Base connections:

Pin No.	1	2	3	4	5	6	7	8	Cap
Element	k, g3, int sd	h	g2	k, g3, int sd	g1	k, g3, int sd	h	base sleeve	a

ABSOLUTE-MAXIMUM RATINGS:

Parameter:	Ef	Eb	Ec1	Ec2	Ib	Ic1	Pp	Pg2	P1	Ehk	Modulation	Alt
Unit:	V	V dc	V dc	V dc	mA dc	mA dc	W	W	W	v	- - -	ft
Maximum:												
Class A audio:	6.9	300	- - -	200	- - -	- - -	10	2.5	- - -	100	- - -	10,000
Class AB2 audio:	6.9	400	- - -	200	75	- - -	10	2.5	30	100	- - -	10,000
Class C Tel:	6.9	400	-175	200	60	3.5	6.7	1.7	20	100	Anode	10,000
Class C Tlg:	6.9	500	-175	200	75	3.5	10	2.5	30	100	- - -	10,000
Minimum:	5.7	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -
Test conditions:	6.3	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -	- - -

GENERAL:

Qualification: Not required.

TABLE I. Testing and inspection.

Inspection	Method	Notes	Conditions	Symbol	Limits Min	Limits Max	Unit
Conformance inspection, part 1							
Total grid current	1266	1	Eb = 500 V dc; Ec2 = 200 V dc; Ec1/ Ib = 20 mA dc	Ic1	0	-3.0	µA dc
Emission	1231	1	Eb = Ec1= Ec2 = 25 V dc	Is	130	- - -	mA dc
Electrode current (anode)	1256		Eb = 200 V dc; Ec2 = 135 V dc; Ec1 = -10 V dc	Ib	23	47	mA dc
Electrode current (screen)	1256		Eb = 200 V dc; Ec2 = 135 V dc; Ec1 = -10 V dc	Ic2	- - -	4	mA dc
Short and discontinuity detection	- - -			- - -	- - -	- - -	- - -
Conformance inspection, part 2							
Heater current	1301			If	740	860	mA
Heater-cathode leakage	1336			Ihk	- - -	50	µA dc
Power oscillation (1)	1236		Eb = 500 V dc; Ec2 = 200 V dc; Ib = 60 mA dc; Ic1 = 2 mA dc; Rg1 = 15,000 Ω; F = 15 MHz	Po	18	- - -	W (useful power)
Direct-interelectrode capacitance	1331	2	No shield	Cg1a Cin Cout	- - - 11.6 6.0	0.2 14.4 8.0	pF pF pF
Low-frequency vibration	1031		Eb = 250 V dc; Ec2 = 200 V dc; Ec1/Ib = 10 mA dc; Rp = 2,000 Ω	Ep	- - -	500	mV ac
Secureness of base, cap, or insert	1101	3		- - -	- - -	- - -	- - -
Base pin solder depth	1111	3		- - -	- - -	- - -	- - -
Permanence of marking	1105	3		- - -	- - -	- - -	- - -

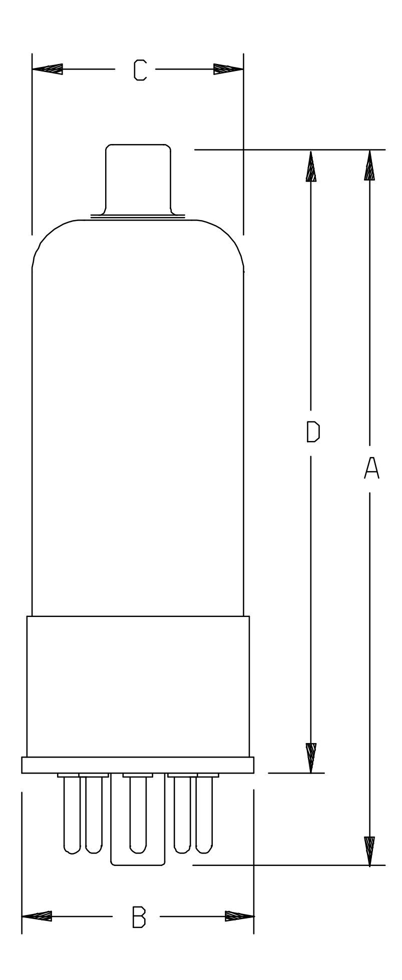
See footnotes at end of table I.

TABLE I. Testing and inspection. - Continued.

Inspection	Method	Notes	Conditions	Symbol	Limits Min	Limits Max	Unit
Conformance inspection, part 3							
Life test	- - -		Group C; Eb = 500 V dc; Ec2 = 200 V dc; Ec1/Ib = 20 mA dc	- - -	- - -	- - -	- - -
Life-test end point (500 hours):	- - -						
Emission	1231		Eb = Ec1 = Ec2 = 25 V dc	Is	100	- - -	mA dc
Power oscillation (2)	1236	3	Eb = 400 V dc; Ec2 = variable; Ic1 = 2mA dc; Ib = 75 mA dc; F = 125 MHz; Rg1 = 25,000 Ω	Po	15	- - -	W (useful power)
Base material insulating quality	1216	3	Zone 5 (min)	- - -	- - -	- - -	- - -

NOTES:

1. This test shall be performed at the conclusion of the holding period.
2. The base sleeve shall be tied to the cathode for each capacitance measurement.
3. This test shall be performed during the initial production and once each succeeding 12-calendar month period in which there is production.



Dimensions in inches with metric equivalents (mm) in parentheses.		
Ltr	Minimum	Maximum
Conformance inspection, part 1		
A	3.344 (84.94)	3.656 (92.86)
B		1.312 (33.32)
C	1.062 (26.97)	1.188 (30.18)
D	2.781 (70.64)	3.094 (78.59)

FIGURE 1. Outline drawing of electron tube type 2E26.

Custodians:
Army - CR
Navy - EC
Air Force - 85

Review activities:
Army - AR
Navy - AS, CG, MC, OS
Air Force - 11

Preparing activity:
DLA - CC

(Project 5960-3458)